

WEST Search History

DATE: Sunday, March 11, 2007

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END OF SEARCH HISTORY

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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

L1 STR

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

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L2 1 SEA SSS SAM L1

=> s l1 full

L3 51 SEA SSS FUL L1

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=> s l3

L4 17 L3

=> s l4 and pd<nov 2002 .

22781957 PD<NOV 2002

(PD<20021100)

L5 9 L4 AND PD<NOV 2002

=> dis l5 1-9 bib abs hitstr

L5 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:188887 CAPLUS Full-text

DN 134:372101

TI Supramolecular π -Stacked Assemblies of Bis(urea)-Substituted Thiophene Derivatives and Their Electronic Properties Probed with Scanning Tunneling Microscopy and Scanning Tunneling Spectroscopy

AU Gesquiere, A.; De Feyter, S.; De Schryver, F. C.; Schoonbeek, F.; van Esch, J.; Kellogg, R. M.; Feringa, B. L.

CS Department of Chemistry, University of Leuven (KULeuven), Heverlee, 3001, Belg.

SO Nano Letters (2001), 1(4), 201-206

CODEN: NALEFD; ISSN: 1530-6984

PB American Chemical Society

DT Journal

LA English

AB In this contribution the authors studied the two-dimensional (2D) supramol. organization and electronic properties of two bis(urea)-substituted oligothiophene derivs., containing two or three thiophene units (T2 and T3, resp.), at the solution/graphite interface with scanning tunneling microscopy (STM) and scanning tunneling spectroscopy (STS). Because of the π -stacking of the oligomers the observed zero conductance band gap in the I(V) curves of a ribbon is considerably smaller than for an isolated oligothiophene mol., indicating that there exists an effective conjugation in the π -stacked ribbons on the surface.

IT 321602-50-0

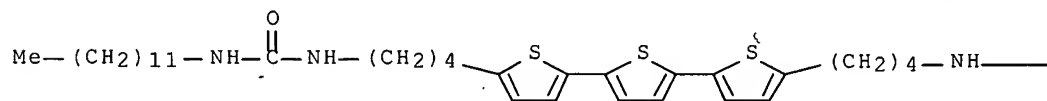
RL: PRP (Properties)

(supramol. π -stacked assemblies of bis(urea)-substituted thiophene derivs. and their electronic properties probed with scanning tunneling microscopy and scanning tunneling spectroscopy)

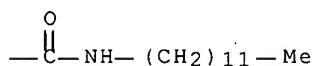
RN 321602-50-0 CAPLUS

CN Urea, N,N'''-([2,2':5',2''-terthiophene]-5,5''-diyl-di-4,1-butanediyl)bis[N'-dodecyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:842503 CAPLUS Full-text

DN 134:137066

TI Molecular Organization of Bis-urea Substituted Thiophene Derivatives at the Liquid/Solid Interface Studied by Scanning Tunneling Microscopy

AU Gesquiere, A.; Abdel-Mottaleb, M. M. S.; De Feyter, S.; De Schryver, F. C.; Schoonbeek, F.; van Esch, J.; Kellogg, R. M.; Feringa, B. L.; Calderone, A.; Lazzaroni, R.; Bredas, J. L.

CS Department of Chemistry Laboratory of Molecular Dynamics and Spectroscopy, University of Leuven (KU Leuven), Heverlee, 3001, Belg.

SO Langmuir (2000), 16(26), 10385-10391

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

AB In this contribution the authors report on a structural study of the 2-dimensional (2D) supramol. organization of 3 bis-urea substituted thiophene derivs., containing one, 2, or 3 thiophene units, at the solution/graphite interface with scanning tunneling microscopy (STM). The compds. under study form highly ordered physisorbed monolayers. Hydrogen bonding between the urea groups of adjacent mols. controls the spatial arrangement on the graphite surface. Mol. modeling and theor. calcns. demonstrate that the thiophene rings are tilted with respect to the surface and have partially overlapping π -systems. This control of the 2-dimensional self-assembly is promising for future studies on the electronic properties of these mols.

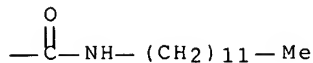
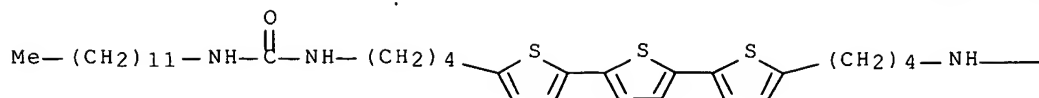
IT 321602-50-0

RL: PRP (Properties).

(mol. organization of bis-urea substituted thiophene derivs. adsorbed at octanol/graphite interface studied by STM)

RN 321602-50-0 CAPLUS

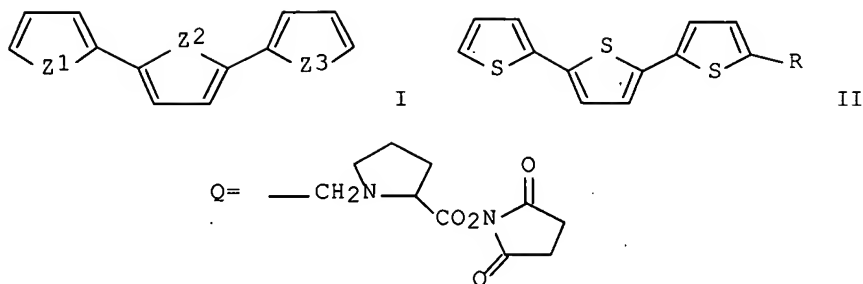
CN Urea, N,N'''-([2,2':5',2''-terthiophene]-5,5''-diyl-di-4,1-butanediyl)bis[N'-dodecyl- (9CI) (CA INDEX NAME)



RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE-FORMAT

L5 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:171806 CAPLUS Full-text
DN 124:232237
TI Preparation of photodynamic α -terthiophene conjugates with biocidal properties
IN Neri, Giovanni; Roncucci, Gabrio
PA L. Molteni & C. Dei Fratelli Alitti Societa di Esercizio Societa Per Azioni, Italy
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9532001	A1	19951130	WO 1995-EP1938	19950522 <--
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2191195	A1	19951130	CA 1995-2191195	19950522 <--
	AU 9525662	A	19951218	AU 1995-25662	19950522 <--
	EP 760679	A1	19970312	EP 1995-920073	19950522 <--
	EP 760679	B1	20000419		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
	AT 191852	T	20000515	AT 1995-920073	19950522 <--
	ES 2147288	T3	20000901	ES 1995-920073	19950522 <--
	US 5869051	A	19990209	US 1996-750021	19961122 <--
PRAI	IT 1994-FI95	A	19940523		
	WO 1995-EP1938	W	19950522		
OS	MARPAT 124:232237				
GI					



AB Photodyn. conjugates consisting of a carrier mol. and of an organic mol., preferably terthiophene or analogs (I; Z1 - Z3 = S, O), able to efficiently produce singlet oxygen after irradiation are prepared I is suitably derivatized in order to react with an amino, thiol saccharide, histidine, and tyrosine group of the carrier mol. Said carrier mols. are selected from antibodies, peptides, heptamers, sugars, or other analogous carriers able to direct the photosensitizer mol. toward a biol. target, e.g. Con A, avidin, biotin, monoclonal antibody-anti-Candida albicans, monoclonal antibody anti-Herpes simplex virus 1 or 2, and monoclonal antibody anti-Rubella virus. Said conjugates (e.g. α -terthiophene conjugates with Con A, avidin, biotin, monoclonal antibody-anti-Candida albicans, monoclonal antibody anti-Herpes simplex virus 1 or 2, and monoclonal antibody anti-Rubella virus) are useful either for therapeutic or diagnostic purposes, e.g., as antibacterial, antiviral, antifungal, and antitumor agents. Thus, formylation of 2,2':5',2''-terthiophene (II; R = H) by N-methylformanilide and POCl₃ in CH₂Cl₂ under reflux for 40 h to 5-formyl- α -terthiophene II (R = CHO) followed reductive alkylation with proline in the presence of NaBH₄ and mol. sieves in MeOH at room temperature for 12 h gave the N-(terthiophenylmethyl)L-proline II (R = CH₂-Pro-OH), which was esterified with N-hydroxysuccinimide using DCC in DMF/CH₂Cl₂ at room temperature for 20 h to give the active ester II (R = Q). The latter compound was coupled with Con A (ConA) in 100 mM phosphate buffer (pH 8) to give the ConA- α -terthiophene conjugate. Suspension of Candida albicans and Saccharomyces cerevisiae was incubated in the dark with the latter conjugate at 3 + 10⁻⁸ M for 0.5 h and then irradiated at 350 nm for 30 min and incubated in the dark for 24 h at 33°. The growth of the treated fungi was completely inhibited. Monoclonal antibodies against Herpes simplex virus 1 or 2, Candida albicans, anti-Rubella virus, and 225-28S.

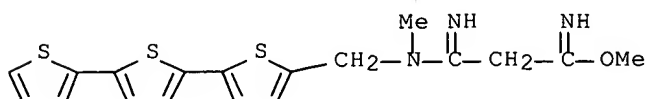
IT 174563-44-1F

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of photodynamic α -terthiophene conjugates for producing singlet oxygen as biocides or diagnostics).

RN 174563-44-1 CAPLUS

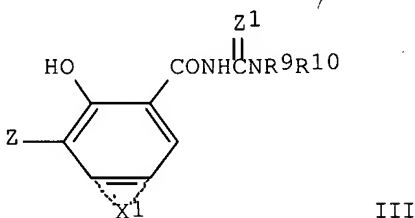
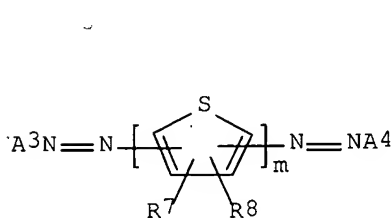
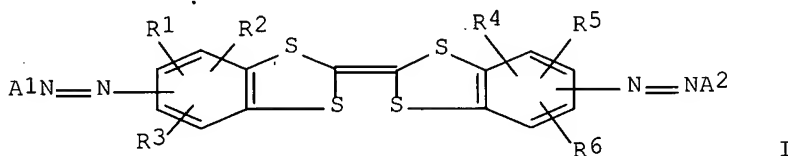
CN Propanimidic acid, 3-imino-3-[methyl([2,2':5',2''-terthiophen]-5-ylmethyl)amino]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L5 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1995:792711 CAPLUS Full-text
 DN 123:183332
 TI Electrophotographic photosensitive member, process cartridge including same and electrophotographic apparatus.
 IN Suzuki, Koichi; Takai, Hideyuki; Miyazaki, Hajime; Sugiyama, Satomi; Kunieda, Mitsuhiro
 PA Canon K. K., Japan
 SO Eur. Pat. Appl., 41 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 657781	A1	19950614	EP 1994-402659	19941122 <--
	EP 657781	B1	20000503		
	R: DE, FR, GB, IT				
	JP 07191481	A	19950728	JP 1994-285261	19941118 <--
	JP 07191480	A	19950728	JP 1994-285404	19941118 <--
	JP 07199494	A	19950804	JP 1994-285403	19941118 <--
	US 5543257	A	19960806	US 1994-345707	19941122 <--
PRAI	JP 1993-314055	A	19931122		
OS	MARPAT 123:183332				
GI					



AB An electrophotog. photosensitive member is constituted by a photosensitive layer containing a specific disazo pigment having a 2,2'-bis-1,3-benzodithiolenediyl skeleton I or a thiophene-diyl skeleton II [R1-R6 = H, alkyl, alkoxy, aryl; A1, A2 = coupler residue having phenolic OH; R7-R8 = H, halogen, alkyl, alkoxy, aryl; A3, A4 = A1, ≥ 1 of A3 and A4 is III (Z = bond; Z1 = O, S; m = pos. integer; X1 = residual group for forming polycyclic aromatic ring or polycyclic heterocyclic group by condensation reaction with the benzene ring; R9-R10 = H, alkyl, aryl, aralkyl, heterocyclyl, can be connected to each other to form a cyclic amino group)]. The photosensitive member is effective for providing a process cartridge and an electrophotog.

apparatus resp. including the photosensitive member with an excellent photosensitivity and a stable elec. potential in repetitive use.

IT 167769-27-9 167769-28-0 167769-29-1
167769-30-4 167769-31-5 167769-32-6
167769-33-7 167769-34-8 167769-35-9
167769-36-0 167769-37-1 167769-38-2
167769-39-3

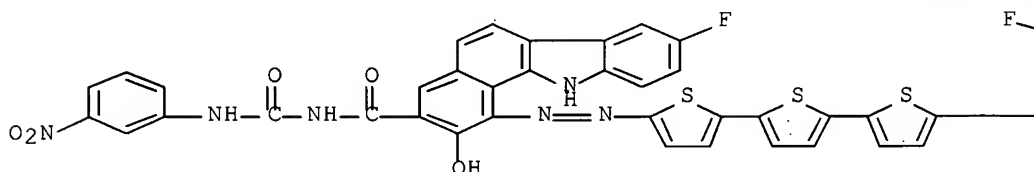
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(charge generator for electrophotog. photoconductor)

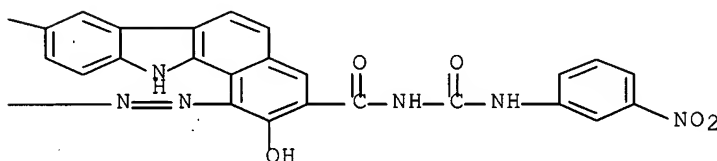
RN 167769-27-9 CAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[2,2':5',2''-terthiophene]-5,5''-diylbis(azo)]bis[8-fluoro-2-hydroxy-N-[[3-nitrophenyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



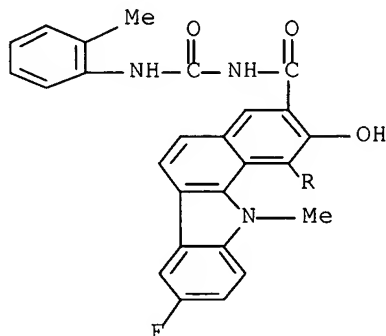
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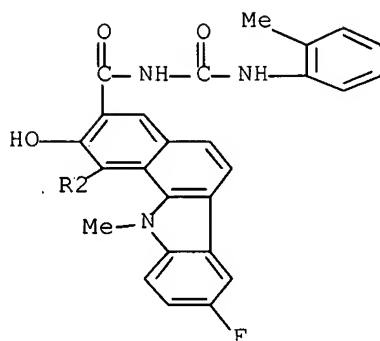
RN 167769-28-0 CAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[2,2':5',2''-terthiophene]-5,5''-diylbis(azo)]bis[8-fluoro-2-hydroxy-N-[[2-methylphenyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

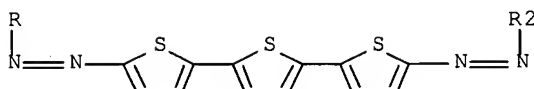
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PAGE 2-A

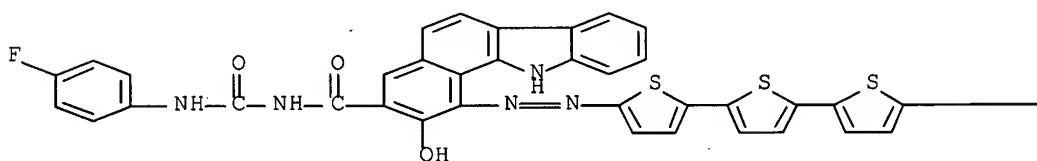


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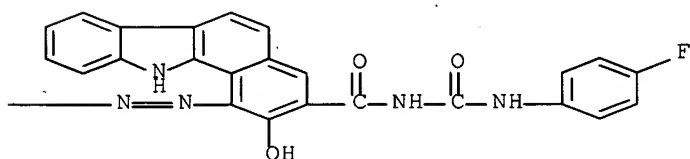


RN 167769-29-1 CAPLUS
 CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[2,2':5',2''-terthiophene]-5,5''-diylbis(azo)]bis[N-[[4-fluorophenyl]amino]carbonyl]-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

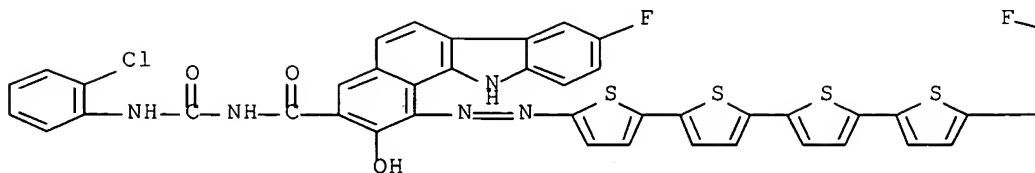


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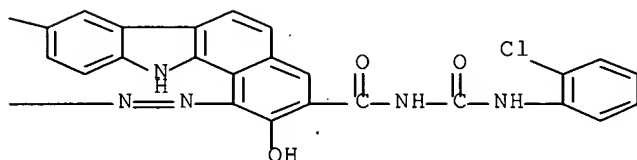
RN 167769-30-4 CAPLUS
 CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[2,2':5',2'':5'',2'''-quaterthiophene]-5,5'''-diylbis(azo)]bis[N-[[2-chlorophenyl]amino]carbonyl]-8-fluoro-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



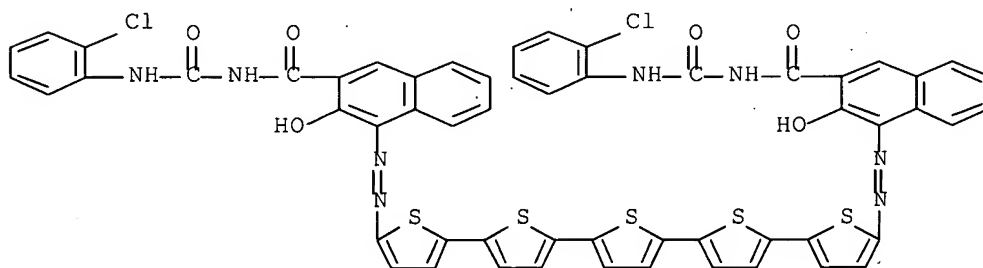
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PAGE 1-B



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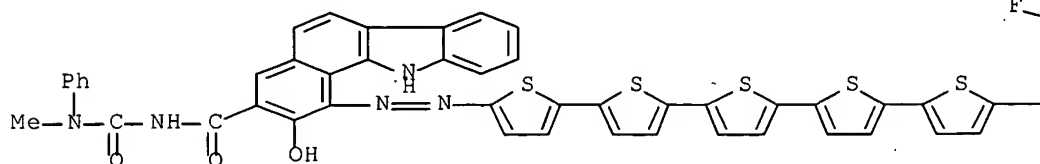
CN 2-Naphthalenecarboxamide, 4,4'-[[2,2':5',2'':5'',2''':5''',2''''-
quinguethiophene]-5,5''''-diylbis(azo)]bis[N-[(2-
chlorophenyl)amino]carbonyl]-3-hydroxy- (9CI) (CA INDEX NAME)



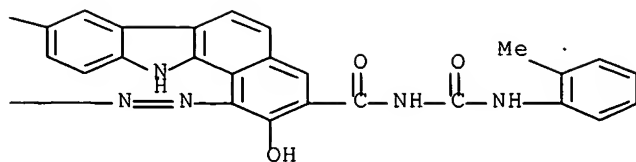
RN 167769-32-6 CAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[2,2':5',2'':5'',2''':5''',2''''-
'-quinguethiophene]-5,5''''-diylbis(azo)]bis[8-fluoro-2-hydroxy-N-[(2-
methylphenyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

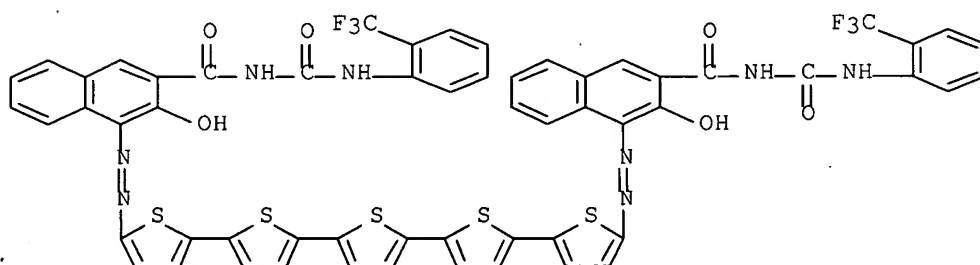


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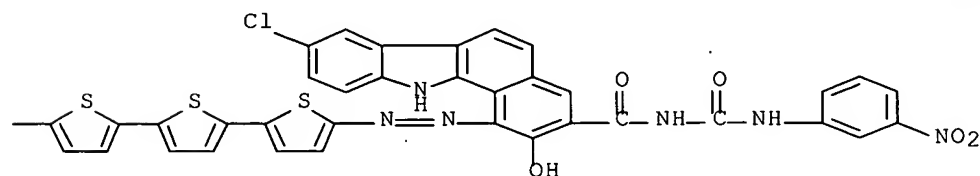
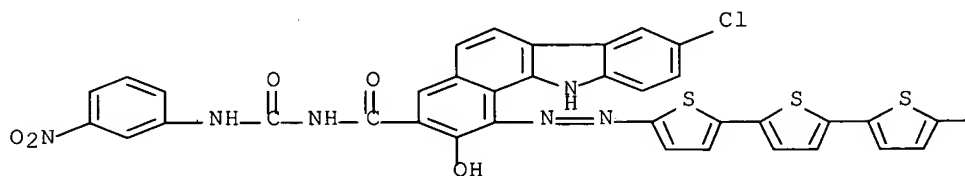
RN 167769-33-7 CAPLUS

CN 2-Naphthalenecarboxamide, 4,4'-[2,2':5',2'':5'',2''':5''',2''':5''']-quinquethiophene-5,5''-diylbis(azo)bis[3-hydroxy-N-[[2-(trifluoromethyl)phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 167769-34-8 CAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[2,2':5',2'':5'',2''':5''',2''':5''':5''',2''':5''']-sexithiophene-5,5''-diylbis(azo)bis[8-chloro-2-hydroxy-N-[(3-nitrophenyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

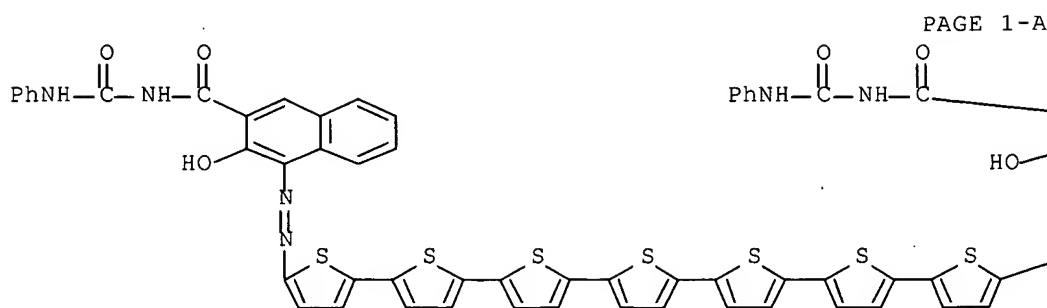


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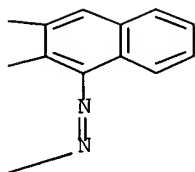
CN 2-Naphthalenecarboxamide, 4,4'-[2,2':5',2'':5'',2''':5''',2''':5''':5''',2''':5''']-septithiophene-5,5''-diylbis(azo)bis[3-hydroxy-N-

10/721,525

[(phenylamino)carbonyl]- (9CI) (CA INDEX NAME)

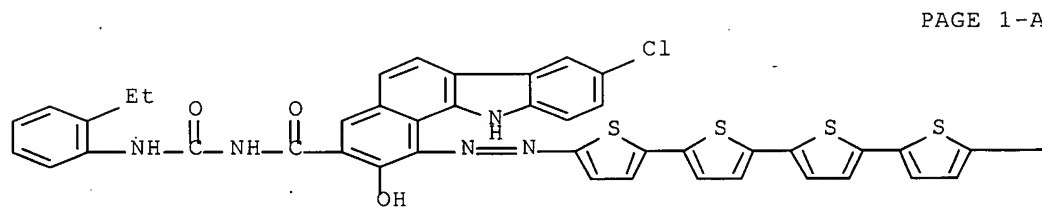


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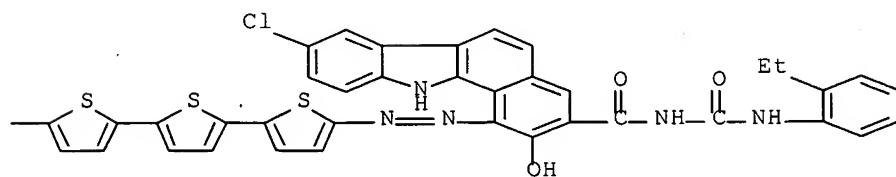


RN 167769-36-0 CAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[2,2':5,2'':5''',2''':5''',2'''' :5''''',2''''':5''''',2''''''-septithiophene]-5,5''''''-diylbis(azo)]bis[8-chloro-N-[[(2-ethoxyphenyl)amino]carbonyl]-2-hydroxy- (9CI) (CA INDEX NAME)

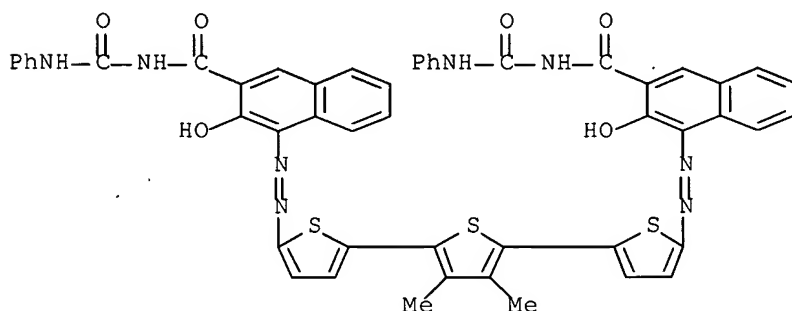


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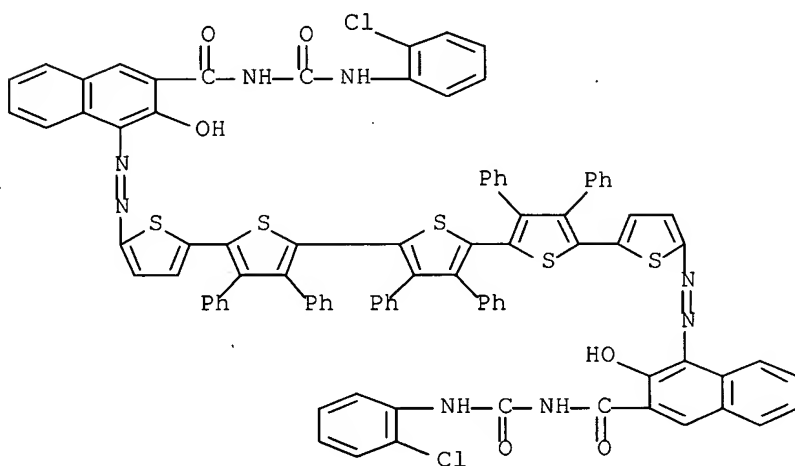
RN 167769-37-1 CAPLUS

CN 2-Naphthalenecarboxamide, 4,4'-[(3',4'-dimethyl[2,2':5',2''-terthiophene]-5,5''-diyl)bis(azo)]bis[3-hydroxy-N-[(phenylamino)carbonyl]- (9CI) (CA INDEX NAME)



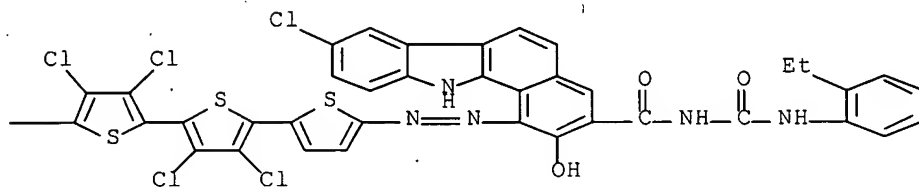
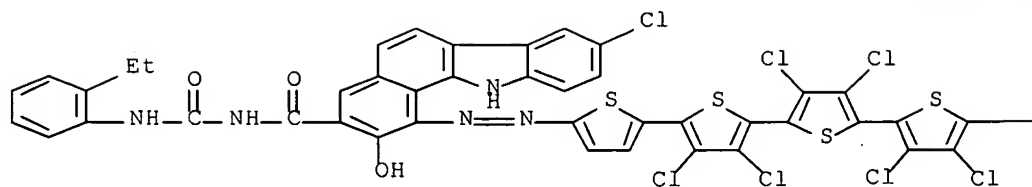
RN 167769-38-2 CAPLUS

CN 2-Naphthalenecarboxamide, 4,4'-[(3',3'',3''',4',4'',4'''-hexaphenyl[2,2':5',2'':5'',2''':5''',2''''-quinguethiophene]-5,5''''-diyl)bis(azo)]bis[N-[(2-chlorophenyl)amino]carbonyl]-3-hydroxy- (9CI) (CA INDEX NAME)



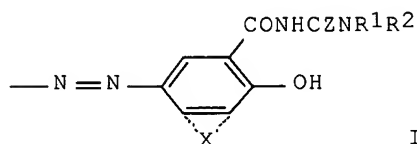
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CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[(3',3'',3''',3''',3''',4',4',4'',4''',4''''-decachloro[2,2':5',2'':5'',2''':5''',2''':5''',2''''-septithiophene]-5,5''''-diyl)bis(azo)]bis[8-chloro-N-[(2-ethylphenyl)amino]carbonyl]-2-hydroxy- (9CI) (CA INDEX NAME)

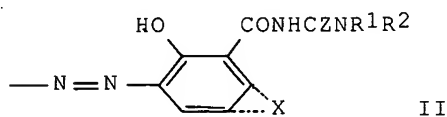


L5 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1994:617588 CAPLUS Full-text
 DN 121:217588
 TI electrophotographic photoreceptor
 IN Suzuki, Koichi; Go, Shintetsu; Kashizaki, Yoshiro
 PA Canon Kk, Japan
 SO Jpn. Kokai Tokyo Koho, 67 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06019166	A	19940128	JP 1992-192752	19920629 <--
	JP 3143525	B2	20010307		
PRAI	JP 1992-192752		19920629		
GI					



I



II

AB An electrophotog. photoreceptor showing good sensitivity and chargeability and suited for repeated usage comprises a photosensitive layer containing a bisazo pigment represented by the formula I or II (X = a residual group necessary for forming an aromatic hydrocarbon or aromatic heterocyclic ring which may fuse with the benzene ring or have a substituent group; R1, R2 = H, alkyl which may have a substituent, aryl, aralkyl, a heterocyclic ring group; or a cyclic amino group containing a N atom bonded to R1 and R2; Z = O or S).

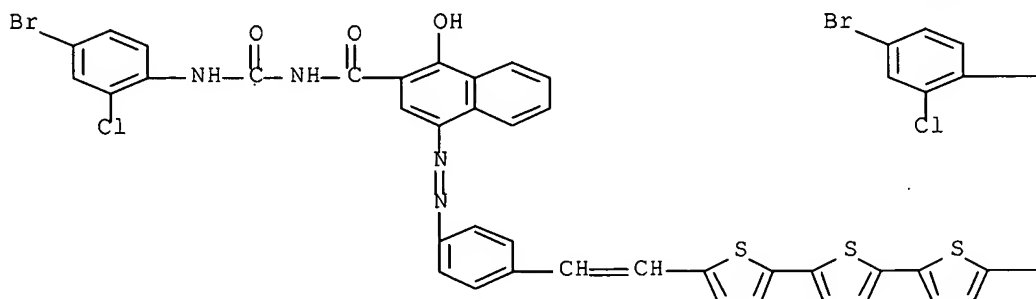
IT 158212-41-0 158212-82-9
 RL: USES (Uses)

10/721,525

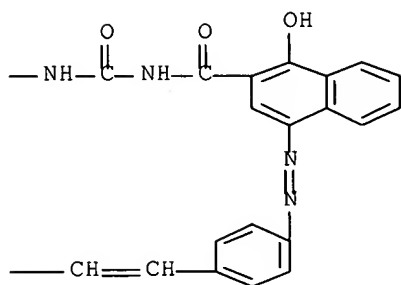
(photosensitive compns. containing, for electrophotog. photoreceptors)

RN 158212-41-0 CAPLUS

CN 2-Naphthalenecarboxamide, 4,4'-[[2,2':5',2''-terthiophene]-5,5''-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[N-[[4-bromo-2-chlorophenyl)amino]carbonyl]-1-hydroxy- (9CI) (CA INDEX NAME)

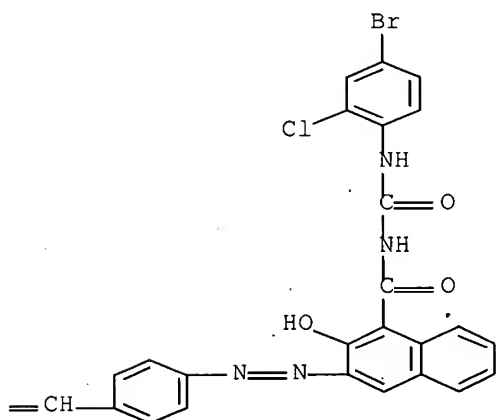
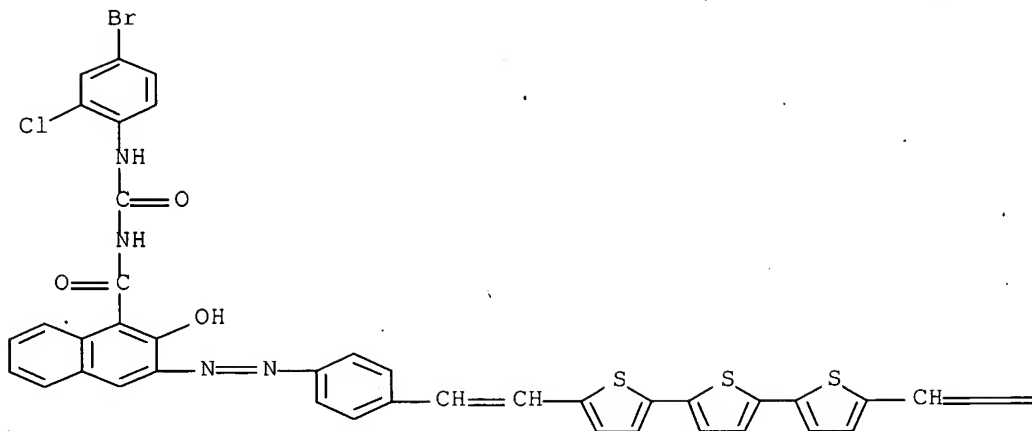


PAGE 1-B



RN 158212-82-9 CAPLUS

CN 1-Naphthalenecarboxamide, 3,3'-[[2,2':5',2''-terthiophene]-5,5''-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[N-[[4-bromo-2-chlorophenyl)amino]carbonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1994:245075 CAPLUS Full-text
 DN 120:245075
 TI Preparation of 4-furanyl-2-[(diaminomethylene)amino]thiazole derivatives
 as antibacterial agents
 PA Fujisawa Pharmaceutical Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 60 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 2

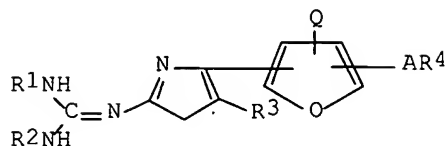
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05078353	A	19930330	JP 1991-185932	19910201 <--
	US 5308857	A	19940503	US 1992-908795	19920706 <--
PRAI	US 1990-476572	A	19900207		
	GB 1988-19365	A	19880815		
	GB 1989-5818	A	19890314		

US 1989-385100

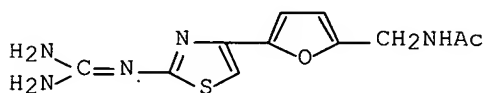
B2 19890716

US 1991-711727

B1 19910610

OS MARPAT 120:245075
GI

I



II

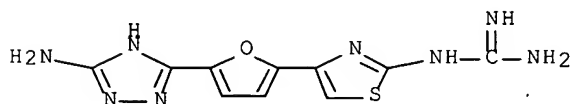
AB The title compds. [I; R1, R2 = H, acyl, halo, lower alkyl; or R1R2 = lower alkylene; R3 = H, lower alkyl; R4 = NH2, acyl, acylamino, lower alkylisothioureido, heterocyclic amino, heterocyclyl, (NH)nC(:XR5)R6 (wherein n = 0,1; X = CH, N; R5 = H, cyano, NO2, acyl; R6 = H, lower alkyl, lower alkylthio, lower alkoxy, optionally substituted NH2); A = lower alkylene, CONH or AR4 = heterocyclyl; Q = H, lower alkyl], having a potent antibacterial activity, particularly against gram neg. bacteria, are prepared Thus, cyclocondensation of 5-acetamidomethyl-2- (chloroacetyl)furan with (diaminomethylene)thiourea in refluxing EtOH gave a title compound (II), which showed min. inhibitory concentration of 12.5 µg/mL against Canpylobacter pylori 8008. A total of 114 I were prepared

IT 129595-90-0P 146354-54-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as antibacterial agent)

RN 129595-90-0 CAPLUS

CN Guanidine, [4-[5-(5-amino-1H-1,2,4-triazol-3-yl)-2-furanyl]-2-thiazolyl]-(9CI) (CA INDEX NAME)

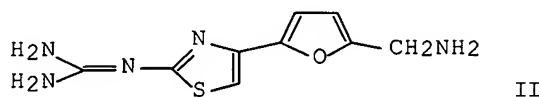
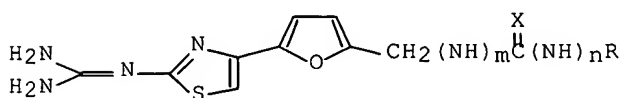


RN 146354-54-3 CAPLUS

CN Guanidine, [4-[5-(2-methyl-1H-imidazol-4-yl)-2-furanyl]-2-thiazolyl]-(9CI) (CA INDEX NAME)

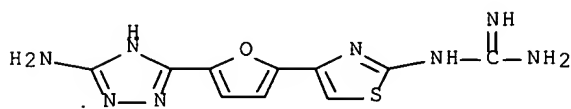


L5 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1993:147500 CAPLUS Full-text
 DN 118:147500
 TI Studies on antiulcer drugs. VI. 4-Furyl-2-guanidinothiazoles and related compounds as potent histamine H₂-receptor antagonists
 AU Katsura, Yousuke; Inoue, Yoshikazu; Tomishi, Tetsuo; Itoh, Harunobu; Ishikawa, Hirohumi; Takasugi, Hisashi
 CS New Drug Res. Lab., Fujisawa Pharm. Co., Ltd., Osaka, 532, Japan
 SO Chemical & Pharmaceutical Bulletin (1992), 40(9), 2432-41
 CODEN: CPBTAL; ISSN: 0009-2363
 DT Journal
 LA English
 GI



AB A series of 4-furyl-2-guanidinothiazole derivs. I (R = Et, Pr, CH₂SM_e, 3-pyridyl, 2-thienyl, H, etc., X = O, NSO₂Me, NSO₂NH₂, NCN, etc., n = 0, 1, m = 0, 1) and related compds. were synthesized and evaluated for histamine H₂-receptor antagonist and gastric acid antiseecretory activities. Thus, (aminomethylfuryl)guanidinothiazole II reacted with RCOCl/pyridine or RCO₂H/DCC to give I (R = Et, Pr, CH₂OMe, 3-pyridyl, etc., X = O, n = 0, m = 1). Among them, I (R = H, X = NSO₂NH₂, n = 1, m = 0; R = H, X = O, n = m = 1; R = Me, X = O, n = m = 1) showed high activities in these tests. In addition, I (R = H, X = NSO₂NH₂) possessed potent inhibitory activities on each of the gastric ulcers induced by stress, ethanol and HCl-aspirin. On the other hand, I (R = H, X = O, n = m = 1) demonstrated antimicrobial activity against Helicobacter Pylori and the potency was far stronger than that of clin. used H₂-antagonists. Some structure-activity relationships are discussed.

IT 129595-90-0P 146354-54-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation, antihistaminic, and antiseecretory activity of)
 RN 129595-90-0 CAPLUS
 CN Guanidine, [4-[5-(5-amino-1H-1,2,4-triazol-3-yl)-2-furyl]-2-thiazolyl]-
 (9CI) (CA INDEX NAME)



RN 146354-54-3 CAPLUS
 CN Guanidine, [4-[5-(2-methyl-1H-imidazol-4-yl)-2-furanyl]-2-thiazolyl]-
 (9CI) (CA INDEX NAME)



L5 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1991:228896 CAPLUS Full-text
 DN 114:228896
 TI Preparation of furylthiazoles as ulcer inhibitors and H2 receptor
 antagonists
 IN Takasugi, Hisashi; Katsura, Yousuke; Inoue, Yoshikazu; Tomishi, Tetsuo
 PA Fujisawa Pharmaceutical Co., Ltd., Japan
 SO Eur. Pat. Appl., 98 pp.
 CODEN: EPXXDW

DT Patent
 LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 355612	A2	19900228	EP 1989-114869	19890811 <--
	EP 355612	A3	19900822		
	EP 355612	B1	19940727		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	ZA 8905655	A	19900425	ZA 1989-5655	19890725 <--
	AU 8939346	A	19900215	AU 1989-39346	19890804 <--
	DK 8903910	A	19900216	DK 1989-3910	19890809 <--
	FI 8903795	A	19900216	FI 1989-3795	19890811 <--
	JP 02072177	A	19900312	JP 1989-208801	19890811 <--
	JP 2814594	B2	19981022		
	NO 8903256	A	19900216	NO 1989-3256	19890814 <--
	CN 1040796	A	19900328	CN 1989-106495	19890814 <--
	US 5308857	A	19940503	US 1992-908795	19920706 <--
PRAI	GB 1988-19365	A	19880815		
	GB 1989-5818	A	19890314		
	US 1989-385100	B2	19890716		
	US 1990-476572	B1	19900207		
	US 1991-711727	B1	19910610		

OS MARPAT 114:228896

GI For diagram(s), see printed CA Issue.

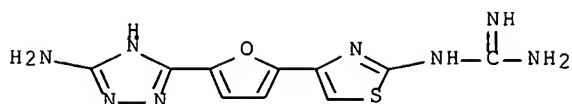
AB The title compds. [I; R1, R2 = H, acyl, (substituted) acyl, (substituted) alkyl; or R1R2 = alkylene; R3 = H, alkyl; R4 = amino, acyl, carboxamido, alkylisothioureido, etc.; A = alkylene, CONH; Q = H, alkyl] and their salts were prepared (Chloroacetyl)furan derivative ClCH2COQ1 was refluxed with (H2N)2C:NC(:S)NH2 in EtOH for 2 h to give [(diaminomethylene)amino]thiazole II, which at 3.2 mg/kg showed 100% inhibition of tetragastrin-induced ulcer in beagle dogs.

IT 129595-90-0P 129596-26-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as antiulcer and H2 receptor antagonist)

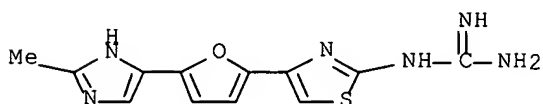
RN 129595-90-0 CAPLUS

CN Guanidine, [4-[5-(5-amino-1H-1,2,4-triazol-3-yl)-2-furanyl]-2-thiazolyl]-
 (9CI) (CA INDEX NAME)



RN 129596-26-5 CAPLUS

CN Guanidine, [4-[5-(2-methyl-1H-imidazol-4-yl)-2-furanyl]-2-thiazolyl]-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:235167 CAPLUS Full-text

DN 112:235167

TI Preparation of thiophene derivatives as herbicides

IN Kober, Reiner; Leyendecker, Joachim; Seele, Rainer; Karbach, Stefan;

Meyer, Norbert; Westphalen, Karl Otto; Wuerzer, Bruno; Wagenblast, Gerhard

PA BASF A.-G., Fed. Rep. Ger.

SO Eur. Pat. Appl., 19 pp.

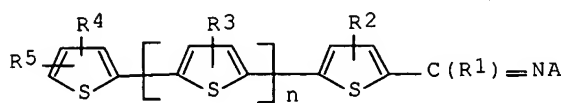
CODEN: EPXXDW

DT Patent

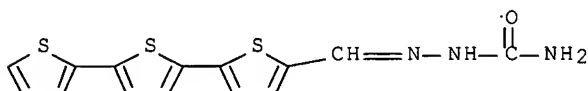
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 344660	A1	19891206	EP 1989-109592	19890527 <--
	EP 344660	B1	19920722		
	R: CH, DE, ES, FR, GB, IT, LI, NL				
	DE 3818670	A1	19891214	DE 1988-3818670	19880601 <--
	US 4937256	A	19900626	US 1989-356552	19890525 <--
	ES 2042877	T3	19931216	ES 1989-109592	19890527 <--
	JP 02076873	A	19900316	JP 1989-136256	19890531 <--
	HU 52773	A2	19900828	HU 1989-2788	19890531 <--
	HU 202523	B	19910328		
PRAI	DE 1988-3818670	A	19880601		
OS	CASREACT 112:235167; MARPAT 112:235167				
GI					



- AB The title compds. I (R1 = H, halogen, C1-8 alkyl, C1-6 alkoxy, C1-8 haloalkyl, or C1-6 haloalkoxy; R2,R3,R4,R5 = CN, NO2, or R1; A = H, C1-8 alkyl, C1-6 haloalkyl, C1-8 alkoxy, C1-6 haloalkyl, optionally substituted aryl or heteroaryl, or OR6 wherein R6 = H, C1-8 alkyl, substituted C1-4 alkyl, optionally substituted C2-8 alkenyl, optionally substituted C3-7 alkynyl, C4-9 cycloalkyl, or NR7R8 group wherein R7,R8 = H, C1-8 alkyl, C1-8 alkoxy, C1-6 haloalkyl, C1-6 haloalkoxy, optionally substituted aryl or heteroaryl, optionally substituted C1-12 alkylcarbonyl, or C1-12 haloalkylcarbonyl; n = 0 or 1) are prepared. Thus, 2,2':5',2''-terthiophene-5-carboxaldehyde was treated with NaHCO3 and ethoxyammonium chloride in MeOH and CH2Cl2, stirred at room temperature for 10 h, the EtOAc removed, washed, dried, and the residue recrystd. to give O-ethyl-2,2':5',2''-terthiophene-5-carbaldoxime (II). II showed a herbicidal effect on Abutilon theophrasti, Datura stramonium, and Lamium amplexicaule.
- IT 127298-62-8P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)
- RN 127298-62-8 CAPLUS
- CN Hydrazinecarboxamide, 2-([2,2':5',2''-terthiophen]-5-ylmethylene)- (9CI) (CA INDEX NAME)



=> s 14 not 15

L6 8 L4 NOT L5

=> dis 16 1-8 bib abs fhitr

L6 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1249222 CAPLUS Full-text

DN 146:27716

TI Preparation of 5,5'-bis-(4-amidinophenyl)-2,2'-bifurans and related compounds as antiprotozoals

IN Werbovetz, Karl; Brun, Reto; Tidwell, Richard R.; Boykin, David W.; Stephens, Chad E.; Ismail, Mohamed A.; Wilson, W. David

PA University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation, Inc.

SO Eur. Pat. Appl., 55pp.

CODEN: EPXXDW

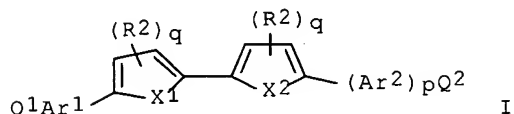
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1726589	A2	20061129	EP 2006-114189	20060519
	EP 1726589	A3	20061213		
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
	AU 2006202040	A1	20061207	AU 2006-202040	20060516

US 2006293540 A1 20061228 US 2006-435323 20060516
 CA 2547186 A1 20061120 CA 2006-2547186 20060517
 JP 2006328065 A 20061207 JP 2006-139710 20060519
 PRAI US 2005-683177P P 20050520
 OS CASREACT 146:27716; MARPAT 146:27716
 GI



AB Title compds. [I; X1, X2 = O, S, Se, Te, NR1; R1 = H, (substituted) alkyl, aryl, cycloalkyl; p = 0, 1; q = 0-2; R2 = halo, OH, alkoxy, aryloxy, aralkoxy, (substituted) alkyl, aryl; Ar1, Ar2 = Ph, pyridyl, benzimidazolyl; Q1, Q2 = C(:NR3)NR4R5, NR6C(:NR3)R7, NR6C(:NR3)NR4R5; R3 = H, OH, acyloxy, alkoxy; R4-R7 = H, OH, (substituted) alkyl, cycloalkyl, aryl, aralkyl, alkoxy, hydroxylalkyl, hydroxycycloalkyl, alkoxycycloalkyl, aminoalkyl, acyloxy, alkylaminoalkyl, alkoxycarbonyl; R3R4 = atoms to form a ring], were prepared Thus, 6-(5'-amidino-2,2'-bifuran-5-yl)nicotinamide acetate [preparation from 6-(5-bromofuran-2-yl)nicotinonitrile given] showed IC50 = 9.7 nM against Trypanosoma brucei rhodesiense.

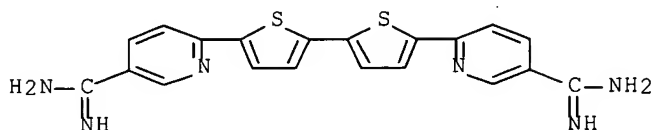
IT 915978-95-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of bisamidinophenylbifurans and related compds. as antiprotazoals)

RN 915978-95-9 CAPLUS

CN 3-Pyridinecarboximidamide, 6,6'-[2,2'-bithiophene]-5,5'-diylbis- (CA INDEX NAME)



L6 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:263212 CAPLUS [Full-text](#)

DN 144:425122

TI 3D QSAR on a library of heterocyclic diamidine derivatives with antiparasitic activity

AU Athri, Prashanth; Wenzler, Tanja; Ruiz, Patricia; Brun, Reto; Boykin, David W.; Tidwell, Richard; Wilson, W. David

CS Department of Chemistry, Georgia State University, Atlanta, GA, 30303, USA.

SO Bioorganic & Medicinal Chemistry (2006), 14(9), 3144-3152

CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier B.V.

DT Journal

LA English

AB African trypanosomes, *Trypanosoma brucei rhodesiense* (TBR) and *Trypanosoma brucei gambiense* (TBG), affect hundreds of thousands of lives in tropical regions of the world. The toxicity of the diamidine pentamidine, an effective drug against TBG, necessitates the design of better drugs. An orally effective prodrug of the diamidine, furamidine (DB75), presently scheduled for phase III clin. trials, has excellent activity against TBG with toxicity lower than that of pentamidine. As part of an effort to develop addnl. and improved diamidines against African trypanosomes, CoMFA and CoMSIA 3D QSAR analyses have been conducted with furamidine and a set of 25 other structurally related compds. Two different alignment strategies, based on a putative kinetoplast DNA minor groove target, were used. Due to conserved electrostatic properties across the compds., models that used only steric and electronic properties did not perform well in predicting biol. results. An extended CoMSIA model with addnl. descriptors for hydrophobic, donor, and acceptor properties had good predictive ability with a $q^2 = 0.699$, $r^2 = 0.974$, SEE, standard error of estimate = 0.1, and $F = 120.04$. The results have been used as a guide to design compds. that, potentially, have better activity against African trypanosomes.

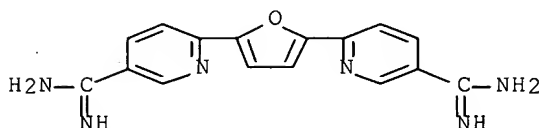
IT 619334-67-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(3D QSAR on library of heterocyclic diamidine derivs. with antiparasitic activity)

RN 619334-67-7 CAPLUS

CN 3-Pyridinecarboximidamide, 6,6'-(2,5-furandiyl)bis- (9CI) (CA INDEX NAME)



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1153680 CAPLUS Full-text

DN 143:430940

TI High electron-mobility organic semiconductor materials and organic thin film transistors provided with organic semiconductor materials thereof

IN Takemura, Chiyoko; Tanaka, Tatsuo; Hirai, Katsura; Kita, Hiroshi

PA Konica Minolta Holdings, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2005303112	A	20051027	JP 2004-118727	20040414
PRAI	JP 2004-118727		20040414		

AB The title organic semiconductor material is $R1X1(Y1-X2)1Y2qZY3r(X3-R2)m$ ($R1-2$ = substg. group; $X1-3$ = heteroat. divalent group; $Y1-3$ = divalent hydrocarbyl group; Z = oligomer, polymer; $l, m = 0-4$ int., $q, r = 0, 1$). The organic semiconductor materials give high electron mobility and makes possible easy

10/721,525

thin film (film thickness 10-300 nm) formation. The title organic TFTs employ the organic semiconductor materials as their active layer.

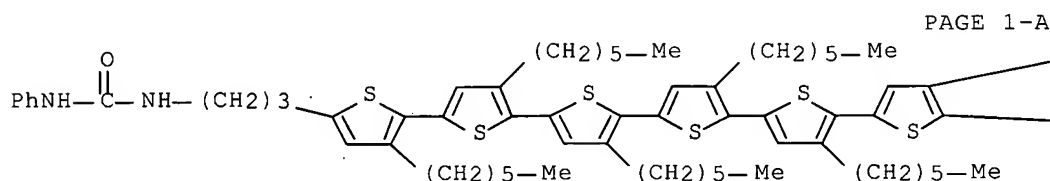
IT 868266-51-7P

RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)

(semiconductor thin film active layer; high electron-mobility organic semiconductor materials and organic thin film transistors provided with organic semiconductor materials thereof)

RN 868266-51-7 CAPLUS

CN Urea, N,N' '-[(3,4''''-dihexyl[2,2':5'',2'':5'',2''':5''',2''':5''',2''':5''']
'-sexithiophene]-5,5''''-diyl)di-3,1-propanediyl]bis[N'-phenyl- (9CI)
(CA INDEX NAME)



PAGE 1-A

$$-(CH_2)_5-Me$$

PAGE 1-B

$$\text{---}(\text{CH}_2)_3\text{---NH---C(=O)NHPh}$$

L6 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN	2004:878380	CAPLUS	Full-text
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DN 141:379931

TI Preparation of aminopyrimidines as IKK inhibitors for treating autoimmune diseases and inflammations:

IN Bollbuck, Birgit; Denholm, Alastair; Eder, Joerg; Hersperger, Rene;
Janzer, Philipp; Revesz, Laszlo; Schlappbach, Achim; Waelchli, Rudolf

PA Novartis Ag, Switz.; Novartis Pharma G.m.b.H.

SO PCT Int. Appl., 217 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

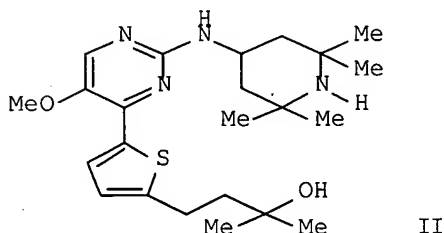
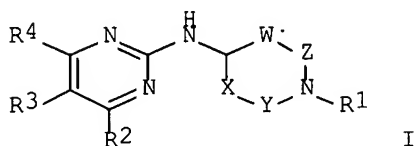
PATE

PI	WO 2004089913	A1	20041021	WO 2004-EP3819	20040408
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,			

10/721,525

SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG

AU 2004228352	A1	20041021	AU 2004-228352	20040408
CA 2521340	A1	20041021	CA 2004-2521340	20040408
EP 1615898	A1	20060118	EP 2004-726485	20040408
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004009314	A	20060425	BR 2004-9314	20040408
CN 1802357	A	20060712	CN 2004-80016050	20040408
JP 2006522768	T	20061005	JP 2006-505087	20040408
US 2007043048	A1	20070222	US 2006-552317	20060706
PRAI GB 2003-8466	A	20030411		
WO 2004-EP3819	W	20040408		
OS MARPAT 141:379931				
GI				



AB Title compds. I [wherein R1 = H, (un)substituted lower alkyl, aryl, heterocycloalkyl, etc.; R2 = (un)substituted aryl, wherein aryl is not 4-(4-fluorophenyl)-1(1-methylpiperidin-4-yl)imidazole; each R3, R4 = independently H, CN, halo, OH, lower alkoxy, (un)substituted lower alkyl; X = CR6R7; Y = CR8R9; Z = CR10R11; W = CR12R13; each R6 to R13 = independently H, (un)substituted lower alkyl, lower alkoxy, CH2O-NH2, etc.; wherein at least one of R6 to R13 is not equal to H; any pair of R6 to R13 are joined together to form an (un)substituted C1 to C4 bridge in which one or more of the bridge atoms is optionally replaced by O, S, NH and deriys.; their pharmaceutically acceptable salts, esters or prodrugs] were prepared as inhibitors of IKK protein kinase (IKK) and production of tumor necrosis factor- α (TNF- α). For e.g., a 3-step synthesis of II was given. I showed IC50 values range of 20 to 1,000 nM in the I κ B kinase activity assay. I, at 30 mg/kg p.o., i.v. or s.c., inhibited TNF- α production to the extent of up to about 50% or more in LPS stimulated mice. I are useful as immunosuppressants and antiinflammatory agents.

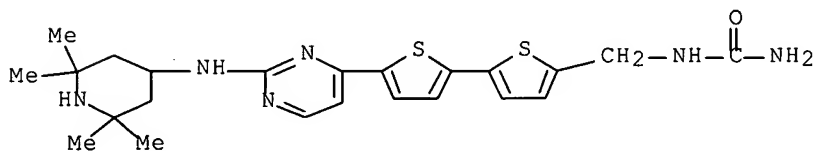
IT 778644-46-5P, [[5'-[2-[(2,2,6,6-Tetramethylpiperidin-4-yl)amino]pyrimidin-4-yl]-[2,2']bithiophenyl-5-yl]methyl]urea
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(IKK inhibitor; preparation of aminopyrimidines as inhibitors of TNF- α production for treating autoimmune diseases and inflammations)

RN 778644-46-5 CAPLUS

CN Urea, [[5'-[2-[(2,2,6,6-tetramethyl-4-piperidinyl)amino]-4-pyrimidinyl][2,2'-bithiophen]-5-yl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:596987 CAPLUS Full-text

DN 141:278144

TI Pyroelectricity in polyurea thin film with oligothiophene segments in the main chain prepared by vapor deposition polymerization

AU Muguruma, Hitoshi; Ishikawa, Masatoshi; Nakada, Jumpei; Hotta, Shu; Takahashi, Yoshikazu

CS Department of Electronic Engineering, Shibaura Institute of Technology, Tokyo, 108-8548, Japan

SO Japanese Journal of Applied Physics, Part 2: Letters & Express Letters (2004), 43(7A), L859-L861
CODEN: JAPLD8

PB Japan Society of Applied Physics

DT Journal

LA English

AB A new polyurea thin film with oligothiophene segments in the main chain was fabricated in the form of a thin film by vapor deposition polymerization (VDP). The film was prepared by the reaction between 5,5'''-bis(aminomethyl)-2,2':5',2'':5'',2'''-quaterthiophene (BAQ) and 4,4'-diphenylmethane diisocyanate (MDI). Spectroscopic data indicate that the reaction occurs successfully and that the resulting thin film is oriented by corona poling. Because of the high crystallinity of the oligothiophene backbone, the film shows a high and stable pyroelectricity (26-220 $\mu\text{C}/\text{m}^2\cdot\text{K}$) at 40-150°C compared with other aromatic polyurea films prepared by VDP and conventional bulk polymer such as polyvinylidene fluoride.

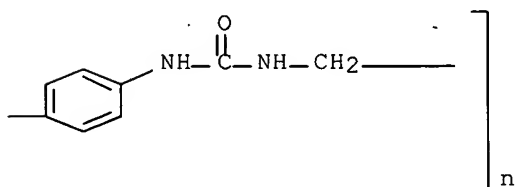
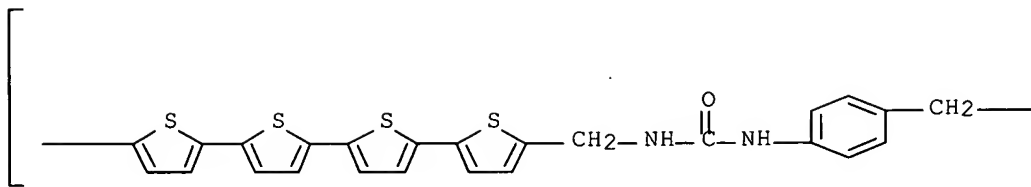
IT 757998-23-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(pyroelectricity in polyurea thin film with oligothiophene segments in the main chain prepared by vapor deposition polymerization)

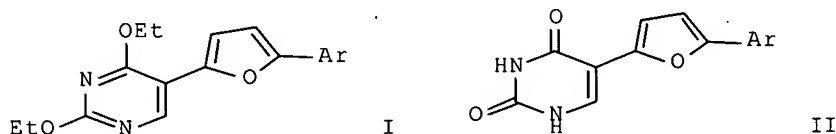
RN 757998-23-5 CAPLUS

CN Poly([2,2':5',2'':5'',2'''-quaterthiophene]-5,5'''-diylmethyleneiminocarbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonyliminomethylene) (9CI) (CA INDEX NAME)



RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:551368 CAPLUS Full-text
DN 142:197998
TI Efficient synthesis of 5-(5-aryl-2-furyl)pyrimidine derivatives
AU Ismail, Mohamed A.
CS Department of Chemistry, Faculty of Science, Mansoura University,
Mansoura, 35516, Egypt
SO Mansoura Science Bulletin, A: Chemistry (2003), 30(2), 157-172
CODEN: MSBCF4; ISSN: 1110-4562
PB Mansoura University
DT Journal
LA English
OS CASREACT 142:197998
GI



AB A variety of novel substituted 5-(5-aryl/hetaryl-2-furyl)pyrimidine derivs. I [Ar = Ph, (E)-CH=CHPh, 4-CNC6H4, 4-CHOC6H4, 2-formylfuryl] including uracil analogs II [Ar = Ph, (E)-CH=CHPh, 4-CHOC6H4] have been synthesized starting from 5-bromo-2,4-diethoxypyrimidine via Stille coupling, NBS-bromination and Suzuki coupling reaction sequence. Subsequent functional group transformations involving either hydrolysis, chlorination, amination or amidoxime formation, methylation, acylation, and Pd-C hydrogenation furnished the desired furyl

pyrimidine derivs. bearing amidoxime, methoxime, amidine, guanyl hydrazone, or diamino groups.

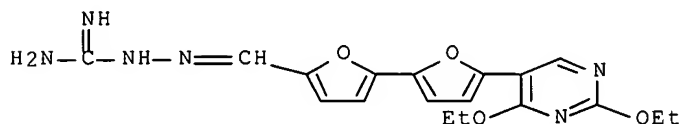
IT 837416-01-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of arylfurylpyrimidines via Suzuki couplings of bromofuryldiethoxypyrimidine with arylboronic acids followed by aryl functional group transformations)

RN 837416-01-0 CAPLUS

CN Hydrazinecarboximidamide, 2-[[5'-(2,4-diethoxy-5-pyrimidinyl)[2,2'-bifuran]-5-yl]methylene]- (9CI) (CA INDEX NAME)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:490698 CAPLUS Full-text

DN 141:54198

TI Preparation of dicationic 2,5-diarylfuran aza-analogs as anti-protozoan agents

IN Boykin, David W.; Tidwell, Richard R.; Ismail, Mohamed A.; Brun, Reto

PA University of North Carolina at Chapel Hill, USA; Georgia State University Research Foundation, Inc.

SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

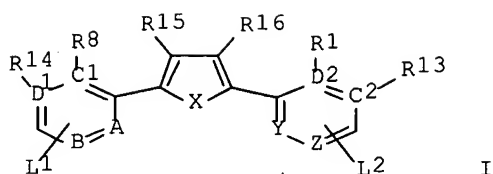
DT Patent

LA English

FAN.CNT 1

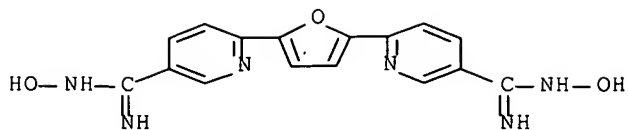
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004050018	A2	20040617	WO 2003-US37691	20031125
	WO 2004050018	A3	20040708		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2504740	A1	20040617	CA 2003-2504740	20031125
	AU 2003295923	A1	20040623	AU 2003-295923	20031125
	US 2004122015	A1	20040624	US 2003-721525	20031125
	US 7148241	B2	20061212		
	EP 1565458	A2	20050824	EP 2003-787137	20031125
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
	JP 2006508164	T	20060309	JP 2004-557293	20031125
PRAI	US 2002-429717P	P	20021127		
	WO 2003-US37691	W	20031125		
OS	MARPAT 141:54198				

GI



I

- AB Heteroaryl diamidines and prodrugs thereof of formula (I) [L1 = C(:NR6)NR5R7, CH:NNHC(:NR6)NR5R7, NHC(:NR6)NR5R7; L2 = C(:NR3)NR2R4, CH:NNHC(:NR3)NR2R4, NHC(:NR3)NR2R4; X = O, S, NR17 (where R17 = H, lower alkyl); C1, C2, A, Y = CH, N, NR17, O, or S, wherein C1 and C2 are the same or different; D1, D2, B, Z = CH, N; or NR17, wherein D1 and D2 are the same or different; provided that B, Z, or both B and Z are not present when A, Y, or both A and Y are O, S, or NR17; R13, R14, R15, R16, R1, R8 = H, lower alkyl, halogen, alkoxy, aryloxy, aralkoxy, HO; R3, R6 = H, HO, lower alkyl, cycloalkyl, aryl, aralkyl, alkoxyl, hydroxycycloalkyl, alkoxycycloalkyl, hydroxyalkyl, aminoalkyl, acyloxy, AcO, alkylaminoalkyl; R2, R4, R5, R7 = H, lower alkyl, alkoxyalkyl, cycloalkyl, aryl, aralkyl, hydroxyalkyl, aminoalkyl, alkylaminoalkyl; or R2 and R4 together or R5 and R7 together represent C2-10 alkyl, hydroxyalkyl, or alkylene, or R3 and R4 together or R6 and R7 together are (R9)_n-substituted 1,2-phenylene (wherein n = 1-3; R9 = H, CONHR10NR11R12; wherein R10 = lower alkyl; R11, R12 = H, lower alkyl)] are prepared These compds. are useful for treating microbial infection, in particular a Trypanosoma brucei rhodesiense infection or a Plasmodium falciparum infection. Thus, Suzuki coupling of 4-cyanophenylboronic acid with 6-(5-bromofuran-2-yl)nicotinonitrile in the presence of tetrakis(triphenylphosphine)palladium in a mixture of toluene, MeOH, and 2 M aqueous Na₂CO₃ at 80° for 24 h to give 76% 6-[5-(4-cyanophenyl)furan-2-yl]nicotinonitrile which underwent addition reaction with hydroxylamine hydrochloride using potassium tert-butoxide in DMSO at room temperature overnight to give 91% N-hydroxy-6-[5-[4-(N-hydroxycarbamimidoyl)phenyl]furan-2-yl]nicotinamide. O-methylation of the latter compound with di-Me sulfate in a mixture of dioxane and 2 N aqueous NaOH at 0-5° for 2 h gave N-methoxy-6-[5-[4-(N-methoxycarbamimidoyl)phenyl]furan-2-yl]nicotinamide (II). Four compds. including 6-[5-(4-carbamimidoylphenyl)furan-2-yl]nicotinamide (III) and its prodrug II show IC₅₀ vs. P. falciparum at less than 10 ng/mL. III and its prodrug II cured the virulent STIB900 strain of T. brucei rhodesiense in a mouse model. In an experiment slated for 180 days, the prodrug II yielded parasite free mice in the CNS model through day 120 and thereby can be employed as an oral treatment of 2nd stage human African trypanosomiasis.
- IT 619334-64-4P, 2,5-Bis[5-(N-hydroxycarbamimidoyl)-2-pyridyl]furan
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of dicationic 2,5-diarylfuran diamidines or prodrugs thereof as anti-protozoan agents)
- RN 619334-64-4 CAPLUS
- CN 3-Pyridinecarboximidamide, 6,6'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2003:758932 CAPLUS Full-text
 DN 139:364780
 TI Synthesis and Antiprotozoal Activity of Aza-Analogues of Furamidine
 AU Ismail, Mohamed A.; Brun, Reto; Easterbrook, Judy D.; Tanious, Farial A.;
 Wilson, W. David; Boykin, David W.
 CS Department of Chemistry, Georgia State University, Atlanta, GA,
 30303-3083, USA
 SO Journal of Medicinal Chemistry (2003), 46(22), 4761-4769
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 139:364780
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 6-[5-(4-Amidinophenyl)furan-2-yl]nicotinamidinium (I; X = O, R = H) was synthesized from 6-[5-(4-cyanophenyl)furan-2-yl]nicotinonitrile (II), through the bis-O-acetoxyamidoxime followed by hydrogenation. Compound II was prepared via selective bromination of 6-(furan-2-yl)nicotinonitrile with N-bromosuccinimide, followed by Suzuki coupling with 4-cyanophenylboronic acid. In a similar way, diamidines III and IV (R = H) were prepared from the corresponding dicyano derivs. N-Methoxy-6-[5-[4-(N-methoxyamidino)phenyl]-furan-2-yl]-nicotinamidinium (I; X = O, R = OMe) was prepared via methylation of the resp. diamidoxime with dimethylsulfate. Prodrugs I (X = S, R = OMe) and IV (R = OMe) were also prepared by methylation of the resp. diamidoximes. The sym. diamidines V and VI were synthesized through the corresponding bis-O-acetoxyamidoxime followed by hydrogenation. The corresponding dicyano precursors were conveniently obtained by Stille coupling between 2,5-bis(tri-n-butylstannyl)furan and the corresponding heteroaryl halides. These compds. have been evaluated in vitro for activity against Trypanosoma b. rhodesiense (T. b. r.) and P. falciparum (P. f.). The diamidines I (X = O, R = H) and IV (R = H), and VI gave IC50 values vs. T. b. r. of less than 10 nM. Against P. f. I (X = O, R = H) and III, and VI exhibited IC50 values less than 10 nM. In an in vivo mouse model for T. b. r. compds. I (X = O, R = OMe, OEt, and H) and IV (R = OMe) were curative. I (X = O, R = OMe) produced cures at an oral dosage of 5 mg/kg.

IT 619334-63-3P

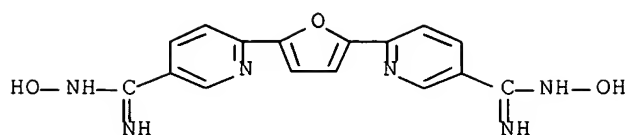
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(preparation, DNA binding affinity, trypanocidal and antimalarial activity of furamidine aza analogs)

RN 619334-63-3 CAPLUS

CN 3-Pyridinecarboximidamide, 6,6'-(2,5-furandiyl)bis[N-hydroxy-, hydrochloride (20:63) (9CI) (CA INDEX NAME)

10/721,525



●63/20 HCl

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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STN INTERNATIONAL LOGOFF AT 13:20:09 ON 11 MAR 2007